# Movement and Talking of Children with Language and Motor Development Disorders

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The aim of this study is to distinguish between persistent language and motor development disorders and temporary delays in language and motor skills in children aged 1 to 6 years, based on indicators in language and motor skills. Main guestion: Which...

Ethical review Approved WMO

**Status** Pending

**Health condition type** Other condition

**Study type** Observational non invasive

## **Summary**

#### ID

NL-OMON56778

#### Source

**ToetsingOnline** 

**Brief title** 

**BEPTOS** 

### **Condition**

Other condition

#### **Synonym**

language disorders, language impariments, language problems, motor disorders, motor impairments, motor problems, movement problems, talking problems

#### **Health condition**

taalstoornissen en motorische stoornissen

### Research involving

Human

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## **Sponsors and support**

**Primary sponsor:** Hanzehogeschool Groningen

Source(s) of monetary or material Support: Sia RAAK

## Intervention

**Keyword:** Children, Language development, Language disorders, Motor development, Motor disorders

## **Outcome measures**

## **Primary outcome**

Two outcome measures are important for this research; language development and motor development.

The following parts of language development are mapped out:

- Language comprehension
- Language production

The following parts of motor development are mapped:

- Fine motor skills
- Gross motor skills
- Balance
- Ball skills

## **Secondary outcome**

not applicable

## **Study description**

## **Background summary**

Poor language development has a major impact on the emotional well-being of children. About 7% of all children have a language development disorder. Language development disorders are often accompanied by other developmental problems. Language experts often see motor problems in children with language development disorders. On the other hand, movement experts often see language problems in children with motor disorders. Children with language disorders and motor disorders have a double handicap; school, social and physical activities are a challenge.

Early identification and treatment of children with language and motor disorders is crucial to increase their chances of social participation.

Language disorders and motor disorders can already be easily detected. However, language experts and movement experts indicate that they need tools to distinguish at an early stage between persistent disorders and temporary delays in language and motor skills. Making this distinction is important for choosing the right care pathway.

It is expected that language problems in combination with motor problems may indicate an underlying neurological disorder. This information could enable both language experts and movement experts to identify and distinguish a persistent neurodevelopmental disorder in language and/or motor skills from non-neurological language and motor delays before the age of five.

## Study objective

The aim of this study is to distinguish between persistent language and motor development disorders and temporary delays in language and motor skills in children aged 1 to 6 years, based on indicators in language and motor skills.

#### Main question:

Which indicators in developmental profiles in language and motor skills of children aged 1 to 6 years can be used to distinguish persistent language and motor development disorders from temporary delays in language and motor skills?

## Study design

Prospective cohort study. No intervention is applied. The children are followed for 3 years.

## Study burden and risks

This study is a group study that cannot be conducted without individuals with language problems, motor problems and a control group. There is no direct proven benefit to participants in this study, but we want to keep the burden on participants as low as possible:

- 1. Duration and test selection: The total test protocol lasts approximately 2x120 minutes and can be assessed in two sessions (initial measurement and 3 years later). In addition, parents/guardians will make video recordings of their child 4 times per year of life for three years.
- 2. Risk burden: In this study there is no risk that is greater than that of regular activities. The tests used in this study are also used in clinical practice.
- 3. Withdrawal: Participants can always decide to take a break, continue the testing procedure at another time, or withdraw from the study without consequences.
- 4. Indirect benefit: Parents/guardians may have an indirect benefit from the report that is made at the end of the study (after three years) based on the results of the tests and the video recordings of their child.

## **Contacts**

## **Public**

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Scientific

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## **Trial sites**

### **Listed location countries**

**Netherlands** 

## **Eligibility criteria**

#### Age

Children (2-11 years)
Babies and toddlers (28 days-23 months)

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### Inclusion criteria

Healthy subjects:

- Age between 1 and 6 years
- No suspicion of language or motor problems by professionals

### **Exclusion criteria**

Children with language problems or motor problems:

- Age between 1 and 6 years
- A suspicion of a language problem identified through a screening (GGD-Groningen, GGD-Amsterdam, Universitair Medisch Centrum Groningen afdeling Keel-, Neus- en Oorheelkunde, Revalidatie Friesland en het Wilhelmina Kinderziekenhuis Utrecht)
- A language disorder diagnosed with an extensive language test by a language expert (speech therapist, speech language pathologist, clinical linguist, educational psychologist)
- A suspicion of motor problems based on a screening (GGD-Groningen, GGD-Amsterdam, Universitair Medisch Centrum Groningen afdeling Keel-, Neus- en Oorheelkunde, Revalidatie Friesland en het Wilhelmina Kinderziekenhuis Utrecht)
- A language disorder diagnosed with an extensive motor test by a movement expert (child physiotherapist, occupational therapist, child exercise therapist, rehabilitation specialist)

## Study design

## Design

Study type: Observational non invasive

Intervention model: Other

Allocation: Non-randomized controlled trial

Masking: Open (masking not used)

**Primary purpose:** Prevention

### Recruitment

NI

Recruitment status: Pending

Start date (anticipated): 01-02-2024

Enrollment: 180

Type: Anticipated

## **Ethics review**

Approved WMO

Date: 24-04-2024

Application type: First submission

Review commission: METC Universitair Medisch Centrum Groningen (Groningen)

## **Study registrations**

## Followed up by the following (possibly more current) registration

No registrations found.

## Other (possibly less up-to-date) registrations in this register

No registrations found.

## In other registers

Register ID

CCMO NL85444.042.23